



SEQUENCE LISTING

<110> Chen, Shih-Yuan
Leu, Charng-Yih

<120> Novel Human alpha 1 Chain Collagen

<130> 32350-176844

<140> US 09/996,611
<141> 2001-11-30

<150> TAIWAN 89128027
<151> 2000-12-27

<160> 5

<170> Microsoft Word

<210> 1
<211> 954
<212> PRT
<213> Homo sapiens

<220>
<223> alpha 1 chain collagen
Pro in this sequence stands for hydroxyproline

<400> 1
Met Ala His Tyr Ile Thr Phe Leu Cys Met Val Leu Val Leu Leu
1 5 10 15
Leu Gln Asn Ser Val Leu Ala Glu Asp Gly Glu Val Arg Ser Ser
20 25 30
Cys Arg Thr Ala Pro Thr Asp Leu Val Phe Ile Leu Asp Gly Ser
35 40 45
Tyr Ser Val Gly Pro Glu Asn Phe Glu Ile Val Lys Lys Trp Leu
50 55 60
Val Asn Ile Thr Lys Asn Phe Asp Ile Gly Pro Lys Phe Ile Gln
65 70 75
Val Gly Val Val Gln Tyr Ser Asp Tyr Pro Val Leu Glu Ile Pro
80 85 90
Leu Gly Ser Tyr Asp Ser Gly Glu His Leu Thr Ala Ala Val Glu
95 100 105
Ser Ile Leu Tyr Leu Gly Gly Asn Thr Lys Thr Gly Lys Ala Ile
110 115 120
Gln Phe Ala Leu Asp Tyr Leu Phe Ala Lys Ser Ser Arg Phe Leu
125 130 135
Thr Lys Ile Ala Val Val Leu Thr Asp Gly Lys Ser Gln Asp Asp
140 145 150
Val Lys Asp Ala Ala Gln Ala Ala Arg Asp Ser Lys Ile Thr Leu

SEQUENCE LISTING

Phe Ala Ile Gly Val Gly Ser Glu Thr	155	Glu Asp Ala Glu Leu Arg	165
Ala Ile Ala Asn Lys Pro Ser Ser Thr	170	Tyr Val Phe Tyr Val Glu	180
Asp Tyr Ile Ala Ile Ser Lys Ile Arg	185	Glu Val Met Lys Gln Lys	195
Leu Cys Glu Glu Ser Val Cys Pro Thr	200	Arg Ile Pro Val Ala Ala	210
Arg Asp Glu Arg Gly Phe Asp Ile Leu	215	Leu Gly Leu Asp Val Asn	225
Lys Lys Val Lys Lys Arg Ile Gln Leu	230	Ser Pro Lys Lys Ile Lys	240
Gly Tyr Glu Val Thr Ser Lys Val Asp	245	Leu Ser Glu Leu Thr Ser	255
Asn Val Phe Pro Glu Gly Leu Pro Pro	260	Ser Tyr Val Phe Val Ser	270
Thr Gln Arg Phe Lys Val Lys Lys Ile	275	Trp Asp Leu Trp Arg Ile	285
Leu Thr Ile Asp Gly Arg Pro Gln Ile	290	Ala Val Thr Leu Asn Gly	300
Val Asp Lys Ile Leu Leu Phe Thr Thr	305	Thr Ser Val Ile Asn Gly	315
Ser Gln Val Val Thr Phe Ala Asn Pro	320	Gln Val Lys Thr Leu Phe	330
Asp Glu Gly Trp His Gln Ile Arg Leu	335	Leu Val Thr Glu Gln Asp	345
Val Thr Leu Tyr Ile Asp Asp Gln Gln	350	Ile Glu Asn Lys Pro Leu	360
His Pro Val Leu Gly Ile Leu Ile Asn	365	Gly Gln Thr Gln Ile Gly	375
Lys Tyr Ser Gly Lys Glu Glu Thr Val	380	Gln Phe Asp Val Gln Lys	390
Leu Arg Ile Tyr Cys Asp Pro Glu Gln	395	Asn Asn Arg Glu Thr Ala	405
Cys Glu Ile Pro Gly Phe Cys Leu Asn	410	Gly Pro Ser Asp Val Gly	420
Ser Thr Pro Ala Pro Cys Ile Cys Pro	425	Pro Gly Lys Pro Gly Leu	435
Gln Gly Pro Lys Gly Asp Pro Gly Leu	440	Pro Gly Asn Pro Gly Tyr	450
Pro Gly Gln Pro Gly Gln Asp Gly Lys	455	Pro Gly Tyr Gln Gly Ile	465
Ala Gly Thr Pro Gly Val Pro Gly Ser	470	Pro Gly Ile Gln Gly Ala	480
Arg Gly Leu Pro Gly Tyr Lys Gly Glu	485	Pro Gly Arg Asp Gly Asp	495
Lys Gly Asp Arg Gly Leu Pro Gly Phe	500	Pro Gly Leu His Gly Met	510

SEQUENCE LISTING

Pro Gly Ser Lys	515	Lys Gly Asp Lys Gly	525
Gly Glu Met Gly Ala	530	Lys Gly Glu Lys Gly	540
Pro Gly Phe Tyr	545	Ala Gly Glu Pro Gly	555
Gly Leu Pro Gly Pro	560	Pro Gly Phe Lys Gly	570
His Gly Lys Asp	575	Asp Gly Thr Arg Gly	585
Gly Ala Pro Gly Gln	590	Arg Gly Leu Met Gly	600
Pro Gly Ile Pro	605	Gln Gly Lys Lys Gly	615
Lys Gly Glu Ile	620	Asn Gly Ser Pro Gly	630
Pro Gly Met Pro	635	Lys Gly Glu Pro Gly	645
Gly Ser Lys Gly Ser	650	Lys Gly Glu Pro Gly	660
Gln Gly Met Pro	665	Lys Gly Glu Pro Gly	675
Thr Gly Ser Pro	680	Gln Gly Glu Lys Gly	690
Gln Gly Lys Lys	695	Gln Gly Ile Pro Gly	705
Gly Asp Lys Gly Asn	710	Lys Gly Glu Arg Gly	720
Gln Gly Gln Lys	725	Ile Gly Ser Lys Gly	735
Gly His His Gly Ala	740	Ala Gly Pro Lys Gly	750
Lys Gly Glu Pro	755	Pro Gly Leu Asp Gly	765
Ser Gly Val Asp	770	Ile Arg Gln Val Cys	780
Pro Gly Asp Pro	785	Leu Leu Gln Ser Gly	795
Pro Gly Arg Glu	800	Gln His Gly Ser Pro	810
Asp Val Ile Arg	815	Pro Gly Pro Ile Gly	825
Ile Arg Asn Cys	830	Val Pro Gly Leu Val	840
Ile Pro Gly Pro	845	Leu Lys Gly Leu Pro	855
Leu Pro Gly Leu	860	Gly Tyr Pro Gly	870
Val Pro Gly Arg	865		
Arg Asn Gly Glu			

SEQUENCE LISTING

	875		880		885
Gln Gly Pro Pro Gly Pro Pro Gly Pro		Glu Gly Pro Pro Gly Ile			
	890		895		900
Ser Lys Glu Gly Pro Pro Gly Asp Pro		Gly Leu Pro Gly Lys Asp			
	905		910		915
Gly Asp His Gly Lys Pro Gly Ile Gln		Gly Gln Pro Gly Pro Pro			
	920		925		930
Gly Ile Cys Asp Pro Ser Leu Cys Phe		Ser Val Ile Ala Arg Arg			
	935		940		945
Asp Pro Phe Arg Lys Gly Pro Asn Tyr					
	950		954		

<210> 2
 <211> 171
 <212> PRT
 <213> Homo sapiens

<220>
 <223> von Willebrand factor A domain

<400> 2

Asp Leu Val Phe Ile Leu Asp Gly Ser Tyr Ser Val Gly Pro Glu		
1	5	10 15
Asn Phe Glu Ile Val Lys Lys Trp Leu Val Asn Ile Thr Lys Asn		
	20	25 30
Phe Asp Ile Gly Pro Lys Phe Ile Gln Val Gly Val Val Gln Tyr		
	35	40 45
Ser Asp Tyr Pro Val Leu Glu Ile Pro Leu Gly Ser Tyr Asp Ser		
	50	55 60
Gly Glu His Leu Thr Ala Ala Val Glu Ser Ile Leu Tyr Leu Gly		
	65	70 75
Gly Asn Thr Lys Thr Gly Lys Ala Ile Gln Phe Ala Leu Asp Tyr		
	80	85 90
Leu Phe Ala Lys Ser Ser Arg Phe Leu Thr Lys Ile Ala Val Val		
	95	100 105
Leu Thr Asp Gly Lys Ser Gln Asp Asp Val Lys Asp Ala Ala Gln		
	110	115 120
Ala Ala Arg Asp Ser Lys Ile Thr Leu Phe Ala Ile Gly Val Gly		
	125	130 135
Ser Glu Thr Glu Asp Ala Glu Leu Arg Ala Ile Ala Asn Lys Pro		
	140	145 150
Ser Ser Thr Tyr Val Phe Tyr Val Glu Asp Tyr Ile Ala Ile Ser		
	155	160 165
Lys Ile Arg Glu Val Met		
	170 171	

<210> 3

SEQUENCE LISTING

<211> 183
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Thrombospondin N-terminal-like domain

<400> 3
 Gly Phe Asp Ile Leu Leu Gly Leu Asp Val Asn Lys Lys Val Lys
 1 5 10 15
 Lys Arg Ile Gln Leu Ser Pro Lys Lys Ile Lys Gly Tyr Glu Val
 20 25 30
 Thr Ser Lys Val Asp Leu Ser Glu Leu Thr Ser Asn Val Phe Pro
 35 40 45
 Glu Gly Leu Pro Pro Ser Tyr Val Phe Val Ser Thr Gln Arg Phe
 50 55 60
 Lys Val Lys Lys Ile Trp Asp Leu Trp Arg Ile Leu Thr Ile Asp
 65 70 75
 Gly Arg Pro Gln Ile Ala Val Thr Leu Asn Gly Val Asp Lys Ile
 80 85 90
 Leu Leu Phe Thr Thr Thr Ser Val Ile Asn Gly Ser Gln Val Val
 95 100 105
 Thr Phe Ala Asn Pro Gln Val Lys Thr Leu Phe Asp Glu Gly Trp
 110 115 120
 His Gln Ile Arg Leu Leu Val Thr Glu Gln Asp Val Thr Leu Tyr
 125 130 135
 Ile Asp Asp Gln Gln Ile Glu Asn Lys Pro Leu His Pro Val Leu
 140 145 150
 Gly Ile Leu Ile Asn Gly Gln Thr Gln Ile Gly Lys Tyr Ser Gly
 155 160 165
 Lys Glu Glu Thr Val Gln Phe Asp Val Gln Lys Leu Arg Ile Tyr
 170 175 180
 Cys Asp Pro
 183

<210> 4
 <211> 509
 <212> PRT
 <213> Homo sapiens

<220>
 <223> collagenous domain
 Pro in this sequence stands for hydroxyproline

<400> 4
 Gly Lys Pro Gly Leu Gln Gly Pro Lys Gly Asp Pro Gly Leu Pro
 1 5 10 15

SEQUENCE LISTING

Gly Asn Pro Gly Tyr Pro Gly Gln Pro Gly Gln Asp Gly Lys Pro	20	25	30
Gly Tyr Gln Gly Ile Ala Gly Thr Pro Gly Val Pro Gly Ser Pro	35	40	45
Gly Ile Gln Gly Ala Arg Gly Leu Pro Gly Tyr Lys Gly Glu Pro	50	55	60
Gly Arg Asp Gly Asp Lys Gly Asp Arg Gly Leu Pro Gly Phe Pro	65	70	75
Gly Leu His Gly Met Pro Gly Ser Lys Gly Glu Met Gly Ala Lys	80	85	90
Gly Asp Lys Gly Ser Pro Gly Phe Tyr Gly Lys Lys Gly Ala Lys	95	100	105
Gly Glu Lys Gly Asn Ala Gly Phe Pro Gly Leu Pro Gly Pro Ala	110	115	120
Gly Glu Pro Gly Arg His Gly Lys Asp Gly Leu Met Gly Ser Pro	125	130	135
Gly Phe Lys Gly Glu Ala Gly Ser Pro Gly Ala Pro Gly Gln Asp	140	145	150
Gly Thr Arg Gly Glu Pro Gly Ile Pro Gly Phe Pro Gly Asn Arg	155	160	165
Gly Leu Met Gly Gln Lys Gly Glu Ile Gly Pro Pro Gly Gln Gln	170	175	180
Gly Lys Lys Gly Ala Pro Gly Met Pro Gly Leu Met Gly Ser Asn	185	190	195
Gly Ser Pro Gly Gln Pro Gly Thr Pro Gly Ser Lys Gly Ser Lys	200	205	210
Gly Glu Pro Gly Ile Gln Gly Met Pro Gly Ala Ser Gly Leu Lys	215	220	225
Gly Glu Pro Gly Ala Thr Gly Ser Pro Gly Glu Pro Gly Tyr Met	230	235	240
Gly Leu Pro Gly Ile Gln Gly Lys Lys Gly Asp Lys Gly Asn Gln	245	250	255
Gly Glu Lys Gly Ile Gln Gly Gln Lys Gly Glu Asn Gly Arg Gln	260	265	270
Gly Ile Pro Gly Gln Gln Gly Ile Gln Gly His His Gly Ala Lys	275	280	285
Gly Glu Arg Gly Glu Lys Gly Glu Pro Gly Val Arg Gly Ala Ile	290	295	300
Gly Ser Lys Gly Glu Ser Gly Val Asp Gly Leu Met Gly Pro Ala	305	310	315
Gly Pro Lys Gly Gln Pro Gly Asp Pro Gly Pro Gln Gly Pro Pro	320	325	330
Gly Leu Asp Gly Lys Pro Gly Arg Glu Phe Ser Glu Gln Phe Ile	335	340	345
Arg Gln Val Cys Thr Asp Val Ile Arg Ala Gln Leu Pro Val Leu	350	355	360
Leu Gln Ser Gly Arg Ile Arg Asn Cys Asp His Cys Leu Ser Gln	365	370	375

SEQUENCE LISTING

His Gly Ser Pro Gly Ile Pro Gly Pro	Pro Gly Pro Ile Gly Pro	380	385	390
Glu Gly Pro Arg Gly Leu Pro Gly Leu	Pro Gly Arg Asp Gly Val	395	400	405
Pro Gly Leu Val Gly Val Pro Gly Arg	Pro Gly Val Arg Gly Leu	410	415	420
Lys Gly Leu Pro Gly Arg Asn Gly Glu	Lys Gly Ser Gln Gly Phe	425	430	435
Gly Tyr Pro Gly Glu Gln Gly Pro Pro	Gly Pro Pro Gly Pro Glu	440	445	450
Gly Pro Pro Gly Ile Ser Lys Glu Gly	Pro Pro Gly Asp Pro Gly	455	460	465
Leu Pro Gly Lys Asp Gly Asp His Gly	Lys Pro Gly Ile Gln Gly	470	475	480
Gln Pro Gly Pro Pro Gly Ile Cys Asp	Pro Ser Leu Cys Phe Ser	485	490	495
Val Ile Ala Arg Arg Asp Pro Phe Arg	Lys Gly Pro Asn Tyr	500	505	509

<210> 5
 <211> 2865
 <212> DNA
 <213> Homo sapiens

<220>
 <223> alpha 1 chain collagen

<400> 5
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 atcttagatg gctcttatag tggtggccca gaaaactttg aaatagtga aaagtggctt 180
 gtcaatatca caaaaaactt tgacataggg ccgaagtta ttcaagttgg agtggttcaa 240
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 cagtttgccg tcgattacct ttttgccaag tcctcacgat ttctgactaa gatagcagtg 420
 gtacttacgg atggcaaadc ccaagatgac gtcaaggatg cagctcaagc agcaagagat 480
 agtaagataa cattatttgc tattggtgtt gggttcagaaa cagaagatgc cgaacttaga 540
 gctattgcca acaagccttc gtctacttat gtgttttatg tggaagacta tattgcaata 600

SEQUENCE LISTING

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aaaaagggtta agaaaagaat acagctttca ccaaaaaaga taaaaggata tgaagtaaca 780
tcaaaagttg atttatcaga actcacaagc aatgttttcc cagaagggtc tcctccatca 840
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SEQUENCE LISTING

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